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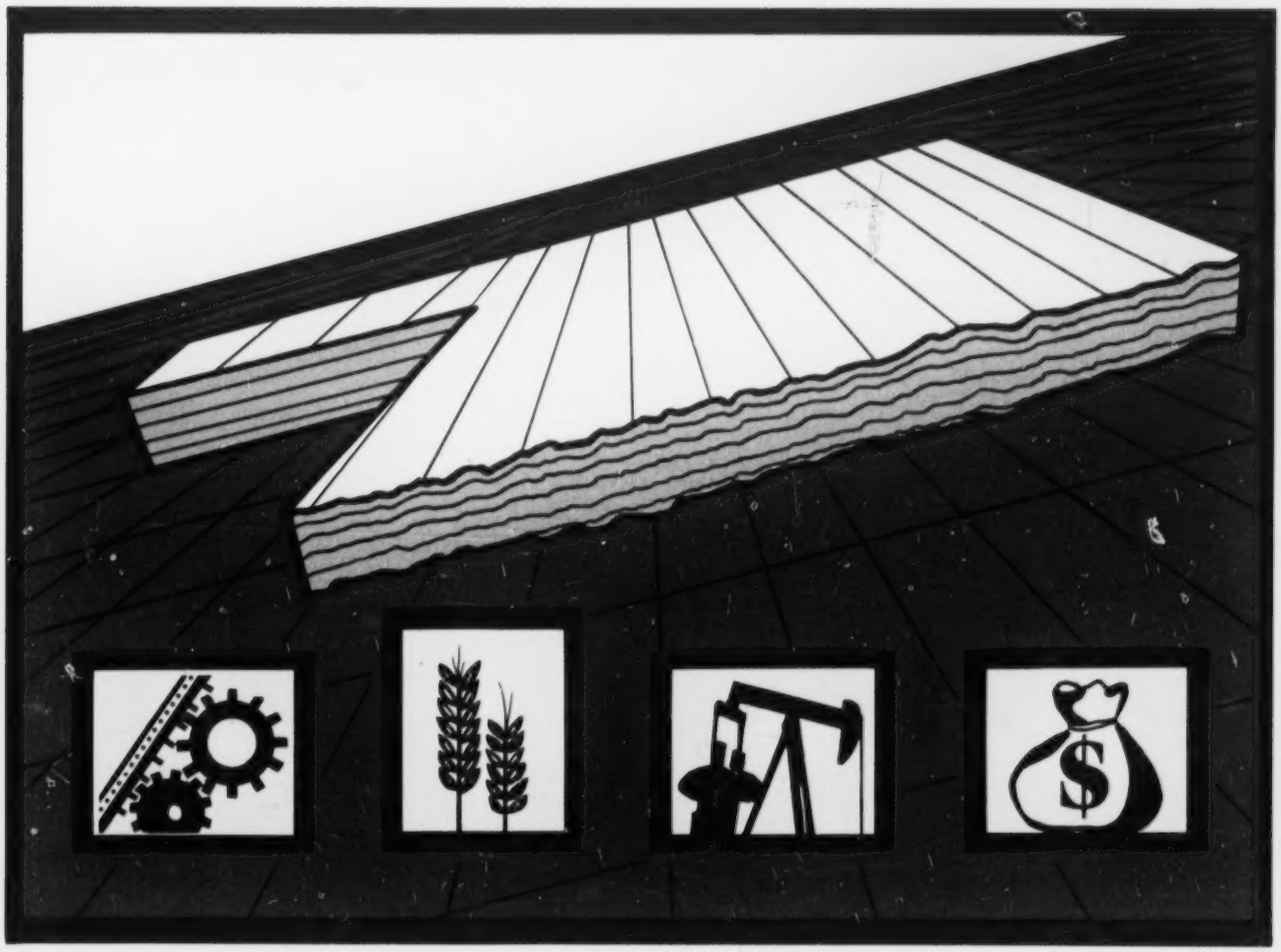

Beginning with this issue, the *Oklahoma Business Bulletin* will be combined with the *Review of Regional Economics and Business*. There will now be four quarterly expanded editions of the *Bulletin* which will contain both articles and the usual statistical information on Oklahoma and its major centers. The remaining eight monthly issues of the *Bulletin* will contain only the statistical summaries, although articles on timely subjects might also appear in these inter-quarterly issues. The combination of these two publications will provide a more thorough examination of economic problems prevalent in Oklahoma as well as continuing to provide economic data which has long been presented in the *Oklahoma Business Bulletin*.

This new publication change at the Center has been assisted by funding provided by the Robert S. and Grayce B. Kerr Foundation Inc., for which the Center is most grateful.

We at the Center are most hopeful that the Oklahoma oriented articles will assist State leaders and citizens in their efforts to solve the economic problems now facing the State.

George W. England
Director

The *Oklahoma Business Bulletin* is published monthly. Subscription rates: one year, $10.00; two years, $16.00; three years, $22.00. Third class postage paid at Norman, Oklahoma.

The Editorial Review Board welcomes original manuscripts, studies, and research reports from persons in both the public and private sector in any area of economics and business administration. The editorial policy of the *Bulletin* promotes a free exchange of ideas and analyses. Accordingly, the contents do not necessarily reflect the views of the editor or the publisher.

Manuscripts for consideration should be typed, double-spaced, and submitted in duplicate. Each submitted manuscript is reviewed by at least two members of the Editorial Review Board and a decision is usually reached in four to six weeks.

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SUMMARY OF INDICATORS

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
Personal Income (Monthly Average)[a]					
Unadjusted ($000,000)	3,393.7	3,365.0	3,421.4	0.8	0.8
Adjusted for CPI ($000,000)	1,033.4	1,044.4	1,027.1	-1.0	0.0
Crude Oil Production (000 bbl)	143,197	162,739	10,197	-12.0	-3.9
Industrial Power Sales (000,000 Kwh)[b]	8,069	8,157	664	-1.1	2.2
Total Bank Deposits ($000,000)[c]					
Demand	7,384	7,731	7,554	-4.5	4.3
Savings	26,257	27,167	25,494	-3.4	0.3
Savings and Loan Associations ($000,000)					
Assets	10,047.2	9,739.2	10,095.4	3.2	0.8
New Mortgage Loans	1,399.7	1,314.2	98.6	6.5	31.1
General Business Index	91.1	93.4	91.1	-2.5	-1.6

[a]Includes revisions.
[b]Sales of larger privately owned utility companies.
[c]Total deposits of all depository institutions.

SELECTED ECONOMIC INDICATORS

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	362,024	390,841	21,188	-7.4	7.6
Number of Units	5,811	6,485	324	-10.4	14.1
Residential—Multi Family					
Dollar Value ($000)	79,584	78,022	900	2.0	109.8
Number of Units	2,407	3,265	32	-26.3	166.7
Nonresidential					
Commercial ($000)	168,658	358,142	11,976	-52.9	-22.5
Industrial ($000)	28,600	57,769	5,483	-50.5	257.4
Institutional ($000)	62,727	69,071	881	-9.2	-18.1
Nonbuilding					
Streets and Highways ($000)	182,057	164,952	9,162	10.4	-71.7
All Other Nonbuilding ($000)	11,126	12,717	291	-12.5	-26.9
Total Construction ($000)	894,777	1,131,515	49,880	-20.9	-29.7
EMPLOYMENT TRENDS					
Total Labor Force (000)[a]	1,593.0	1,573.0	1,583.1	1.3	-0.6
Total Employment (000)	1,462.0	1,461.0	1,457.8	0.0	-0.4
Agriculture (000)	41.1	46.9	32.7	-10.4	-12.4
Nonagriculture (000)	1,420.9	1,414.1	1,425.1	0.5	-0.2
Manufacturing (000)	162.8	171.4	159.5	-5.0	-0.1
Mining (000)	55.1	65.4	53.1	-15.7	0.0
Government (000)	251.2	254.4	256.1	-1.9	-1.0
Contract Construction (000)	40.0	45.1	39.7	-11.3	-1.2
Services (000)	224.5	222.9	224.7	0.7	0.4
Retail Trade (000)	217.1	220.2	223.3	-1.4	1.6
Unemployment Rate (%)	8.3	7.1	7.9	—	—
Average Weekly Hours					
Manufacturing (Per Worker)	41.3	41.3	41.9	0.0	0.5
Average Weekly Earnings					
Manufacturing ($ Per Worker)	404.74	407.22	414.39	-0.6	1.8
Contract Construction ($ Per Worker)	408.01	408.74	428.43	-0.2	7.8
Retail Trade Excluding Eating and Drinking Places($ Per Worker)	188.79	194.69	190.34	-3.0	3.8

Note: Includes revisions.
[a]Civilian Labor Force.

RETAIL TRADE IN METRO AREAS AND STATE
($000)

Retail Trade	12 Mos. '86 Adjusted	12 Mos. '85 Adjusted	Dec. '86 Adjusted	Dec. '86 Unadjusted	Percentage Change 12 Mos. '86/'85 Adjusted	Percentage Change Dec./Nov. '86 Adjusted	Percentage Change Dec./Nov. '86 Unadjusted
OKLAHOMA CITY MSA							
Food	2,197,331	1,962,331	191,561	198,660	12.0	1.9	13.9
Apparel	195,756	219,197	15,635	26,508	-10.7	-0.3	59.2
General Merchandise	782,905	887,622	61,845	105,562	-11.8	-1.2	64.2
Furniture	229,814	274,866	16,439	20,119	-16.4	-0.6	21.1
Lumber	212,400	205,449	16,550	12,052	3.4	6.0	-18.8
Auto Dealers	1,814,976	1,496,819	170,566	143,771	21.3	8.8	-17.4
Service Stations	211,784	312,692	15,460	15,771	-32.3	4.0	8.9
All Other	738,640	742,838	64,862	82,805	-0.6	18.0	83.7
Total	6,383,606	6,101,814	552,918	605,248	4.6	5.3	16.3
TULSA MSA							
Food	1,347,265	1,221,946	113,504	123,817	10.3	1.6	12.9
Apparel	177,859	201,558	14,431	24,892	-11.8	-0.5	58.0
General Merchandise	594,510	715,504	50,961	74,910	-16.9	3.8	54.2
Furniture	234,549	198,755	20,114	24,549	18.0	1.8	33.3
Lumber	191,640	141,912	16,355	12,754	35.0	3.3	-8.5
Auto Dealers	1,056,036	870,872	99,246	83,653	21.3	8.8	-17.4
Service Stations	173,998	256,908	12,701	12,956	-32.3	4.0	8.9
All Other	102,548	117,374	6,623	11,713	-12.6	-3.8	150.2
Total	3,878,405	3,724,829	333,935	369,244	4.1	3.9	13.9
ENID MSA							
Food	116,453	113,709	9,632	10,205	2.4	2.5	11.6
Apparel	19,656	19,385	1,626	2,396	1.4	-0.2	52.6
General Merchandise	49,826	56,151	3,887	6,520	-11.3	-4.0	56.9
Furniture	11,817	14,075	1,020	1,160	-16.0	-2.7	13.3
Lumber	19,443	15,157	1,695	1,137	28.3	3.5	-32.6
Auto Dealers	103,867	85,668	9,761	8,228	21.2	8.8	-17.4
Service Stations	15,618	23,072	1,141	1,163	-32.3	4.1	8.9
All Other	38,358	31,305	3,624	4,810	22.5	2.8	33.8
Total	375,038	358,522	32,386	35,619	4.6	3.3	10.5
LAWTON MSA							
Food	179,893	166,545	15,246	15,380	8.0	0.4	9.8
Apparel	19,954	22,587	1,529	2,555	-11.7	-4.0	57.3
General Merchandise	107,437	117,693	9,772	14,704	-8.7	6.0	56.9
Furniture	30,513	28,676	2,584	3,039	6.4	1.9	23.7
Lumber	24,253	25,591	1,915	1,422	-5.2	-1.9	-24.4
Auto Dealers	138,437	114,179	13,009	10,966	21.2	8.8	-17.4
Service Stations	10,649	15,737	778	794	-32.3	4.0	8.9
All Other	47,241	50,784	5,118	4,040	-7.0	27.5	7.9
Total	558,377	541,792	49,951	52,900	3.1	5.8	12.3
MUSKOGEE AREA							
Food	144,418	129,537	12,597	12,389	11.5	3.3	5.8
Apparel	18,733	20,267	1,752	2,767	-7.6	14.6	101.1
General Merchandise	40,089	51,216	3,540	5,395	-21.7	6.1	60.8
Furniture	14,074	12,053	1,214	1,477	16.8	-0.7	26.2
Lumber	6,851	6,096	579	443	12.4	10.5	-12.8
Auto Dealers	87,337	72,025	8,204	6,918	21.3	8.7	-17.4
Service Stations	13,681	20,232	998	1,018	-32.4	4.4	8.9
All Other	32,836	24,380	2,891	3,306	34.7	1.9	17.8
Total	358,019	335,806	31,775	33,713	6.6	5.4	11.5
STATE[a]							
Durable Goods	6,593,021	5,673,238	581,261	544,743	16.2	3.2	-9.0
Auto Dealers	4,535,536	3,740,393	426,241	359,280	21.3	8.8	-17.4
Accessory Dealers	352,817	382,581	28,123	29,346	-7.8	0.4	10.7
Total Automotive	4,888,353	4,122,974	454,364	388,626	18.6	8.2	-15.8
Furniture	321,346	344,375	25,444	29,253	-6.7	2.8	19.2
Household Appliances	254,785	256,075	21,274	24,230	-0.5	3.2	17.7
Total Furniture and Appliances	576,131	600,450	46,718	53,483	-4.1	3.0	18.5
Lumber and Building Materials	703,989	573,162	58,169	44,615	22.8	3.7	-15.1
Hardware Stores	68,647	69,728	5,648	6,048	-1.6	-0.5	14.7
Total Lumber, Building Materials & Hardware	772,636	642,890	63,817	50,663	20.2	3.4	-12.4
Nondurable Goods	11,622,484	11,023,821	972,922	1,230,481	5.4	0.9	32.8
Apparel	601,014	630,855	48,487	80,778	-4.7	0.5	58.5
Drug Stores	511,653	420,110	45,124	59,831	21.8	1.3	33.5
Eating and Drinking Places	1,942,879	1,683,920	168,483	162,624	15.4	0.4	3.8
Food Group	4,749,990	4,068,233	409,833	445,825	16.8	5.9	26.3
Service Stations	695,521	1,026,891	50,788	51,794	-32.3	4.0	8.9
General Merchandise Group	2,336,719	2,414,726	195,522	346,153	-3.2	0.1	62.2
Total Retail Trade	18,215,505	16,697,059	1,554,183	1,775,224	9.1	1.8	16.4

[a]Total includes data for categories not shown in the table.

RETAIL TRADE IN SELECTED CITIES
($000)

Retail Trade	12 Mos. '86 Adjusted	12 Mos. '85 Adjusted	Dec. '86 Adjusted	Dec. '86 Unadjusted	Percentage Change 12 Mos. '86/'85 Adjusted	Percentage Change Dec./Nov. '86 Adjusted	Percentage Change Dec./Nov. '86 Unadjusted
Ada	176,082	171,080	15,370	17,414	2.9	1.2	16.9
Altus	161,708	145,981	14,162	15,728	10.8	-0.4	8.6
Alva	49,852	47,388	4,138	4,837	5.2	-0.8	17.0
Anadarko	67,797	62,331	6,121	6,479	8.8	2.0	13.5
Ardmore	230,403	220,845	20,549	21,967	4.3	3.3	11.4
Bartlesville	226,317	240,466	17,340	20,512	-5.9	-3.0	14.4
Blackwell	41,072	41,855	3,383	3,735	-1.9	-2.6	5.4
Broken Arrow	224,255	206,253	19,046	19,845	8.7	-1.8	6.3
Chickasha	116,318	115,129	9,683	10,926	1.0	-2.2	9.2
Clinton	74,178	72,486	6,295	6,257	2.3	1.6	-2.5
Cushing	75,822	77,540	6,446	7,297	-2.2	1.7	19.9
Del City	121,400	118,342	10,177	10,127	2.6	-1.2	1.3
Duncan	163,293	159,958	13,465	14,958	2.1	-1.3	8.7
Durant	114,192	104,241	9,866	11,042	9.5	0.4	13.7
Edmond	309,846	284,402	26,686	28,571	8.9	-1.4	11.3
Elk City	97,200	94,304	8,202	8,928	3.1	-0.7	9.0
El Reno	101,227	104,990	8,467	9,130	-3.6	1.5	6.9
Guthrie	72,411	64,696	6,008	6,263	11.9	-0.4	7.7
Guymon	62,212	59,192	5,245	6,290	5.1	-0.4	21.3
Henryetta	63,785	60,901	5,770	6,172	4.7	5.5	19.1
Hobart	30,745	29,947	2,524	2,705	2.7	-2.4	1.3
Holdenville	37,315	35,131	3,206	3,552	6.2	-1.5	4.6
Hugo	38,534	34,597	3,404	3,791	11.4	-0.8	13.2
Idabel	48,951	50,004	4,046	4,401	-2.1	-1.0	7.8
Lawton	551,192	540,501	46,006	48,928	2.0	2.2	10.0
McAlester	130,849	130,401	10,873	11,745	0.3	-1.0	5.9
Miami	157,205	121,774	14,748	17,837	29.1	7.7	36.5
Midwest City	482,262	466,807	42,731	46,263	3.3	2.3	16.0
Moore	144,796	139,581	11,802	12,588	3.7	-2.1	5.3
Muskogee	340,188	318,470	29,239	32,056	6.8	0.2	10.7
Norman	757,399	719,830	65,877	68,178	5.2	0.2	3.7
Oklahoma City	3,220,796	3,249,645	268,143	303,200	-0.9	2.3	16.5
Okmulgee	73,874	66,845	6,315	7,006	10.5	-0.4	9.1
Pauls Valley	47,915	50,910	3,730	4,254	-5.9	-0.6	16.0
Pawhuska	22,808	22,848	1,890	2,242	-0.2	0.5	24.1
Ponca City	191,915	178,342	16,789	18,957	7.6	2.6	16.3
Poteau	60,481	56,503	5,440	5,823	7.0	2.3	5.8
Sand Springs	100,072	90,658	9,072	9,205	10.4	5.0	12.2
Sapulpa	178,988	177,430	15,936	16,875	0.9	4.1	7.8
Seminole	89,718	68,048	8,167	9,365	31.8	5.5	21.4
Shawnee	271,589	251,586	23,436	25,955	8.0	-0.3	10.2
Stillwater	244,640	242,382	21,598	22,391	0.9	2.6	8.3
Tahlequah	92,874	92,391	8,237	8,685	0.5	3.3	10.4
Tulsa	2,905,573	2,798,673	249,729	276,894	3.8	3.0	13.7
Watonga	22,154	22,913	1,880	2,357	-3.3	4.2	36.7
Weatherford	75,270	82,631	5,879	6,995	-8.9	-6.8	9.7
Wewoka	14,828	15,019	1,219	1,311	-1.3	-2.2	4.9
Woodward	144,912	141,326	12,124	13,882	2.5	-1.7	11.5
Total Selected Cities	13,027,213	12,647,573	1,110,459	1,223,919	3.0	1.6	12.8

ENID AND LAWTON MSAs

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
ENID MSA					
Employment (Number)[a]					
Labor Force	30,811	31,875	30,175	-0.3	0.2
Total Employment	28,379	29,700	27,850	-4.4	0.2
Manufacturing	1,600	2,000	1,500	-20.0	0.0
Wholesale and Retail Trade	6,600	7,100	6,300	-7.0	3.3
Unemployment Rate (%)	8.0	6.8	7.7	—	—
Industrial Power Sales (000 Kwh)	463,044	493,491	36,204	-6.2	0.8
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	1,710	5,555	0	-69.2	—
Number of Units	23	84	0	-72.6	—
Residential—Multi Family					
Dollar Value ($000)	6,000	1,396	0	329.9	0.0
Number of Units	124	27	0	359.3	0.0
Nonresidential					
Commercial ($000)	824	3,470	35	-76.3	—
Industrial ($000)	1,587	205	0	E	0.0
Institutional ($000)	0	2,650	0	—	0.0
Nonbuilding					
Streets and Highways ($000)	2,958	1,546	0	91.3	—
All Other Nonbuilding ($000)	9	80	0	-88.7	0.0
Total Construction ($000)	13,088	14,902	35	-12.2	-98.6
LAWTON MSA					
Employment (Number)[a]					
Labor Force	47,267	46,850	47,600	0.9	0.4
Total Employment	44,867	44,508	45,100	0.8	0.2
Unemployment Rate (%)	5.2	5.0	5.3	—	—
Industrial Power Sales (000 Kwh)	187,473	177,018	14,314	5.9	-13.5
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	21,172	13,371	1,044	58.3	-14.8
Number of Units	334	228	17	46.5	21.4
Residential—Multi Family					
Dollar Value ($000)	2,119	3,830	0	-44.7	0.0
Number of Units	78	147	0	-46.9	0.0
Nonresidential					
Commercial ($000)	5,485	5,332	91	2.9	-73.5
Industrial ($000)	1,232	0	0	—	—
Institutional ($000)	1,638	14,886	0	-89.0	0.0
Nonbuilding					
Streets and Highways ($000)	8,525	6,615	0	28.9	—
All Other Nonbuilding ($000)	0	0	0	0.0	0.0
Total Construction ($000)	40,170	44,034	1,135	-8.8	-81.5

[a]Includes revisions.

E = exceeds 600 percent.

MUSKOGEE MA

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
Employment (Number)[a]					
Labor Force	33,246	32,300	33,050	2.9	-0.5
Total Employment	30,260	29,075	30,300	4.1	-0.3
Unemployment Rate (%)	9.0	10.0	8.3	—	—
Industrial Power Sales (000 Kwh)	167,362	195,350	13,892	-14.4	-4.0
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	6,589	7,092	553	-7.1	33.3
Number of Units	96	98	8	-2.0	33.3
Residential—Multi Family					
Dollar Value ($000)	4,428	3,313	158	33.7	-32.1
Number of Units	104	96	5	8.3	-28.6
Nonresidential					
Commercial ($000)	3,610	4,124	654	-12.5	336.2
Industrial ($000)	2,368	2,093	0	13.2	0.0
Institutional ($000)	4,975	2,016	0	146.8	0.0
Nonbuilding					
Streets and Highways ($000)	894	2,828	574	-68.4	—
All Other Nonbuilding ($000)	109	150	0	-27.5	0.0
Total Construction ($000)	22,973	21,616	1,939	6.3	143.3

[a]Includes revisions.

TULSA MSA

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
Employment (Number)[a]					
Labor Force	354,517	344,283	354,400	3.0	-0.6
Total Employment	324,575	319,292	326,600	1.6	-0.4
Agriculture	3,608	3,650	3,000	-9.1	-1.2
Nonagriculture	320,967	315,642	323,600	1.7	-0.3
Manufacturing	52,167	53,283	51,800	-2.1	0.6
Mining	19,367	20,442	19,100	-5.3	0.0
Government	34,517	34,642	35,000	-0.3	-1.7
Wholesale and Retail Trade	74,358	73,492	75,700	0.8	1.2
Unemployment Rate (%)	8.4	7.2	7.8	—	—
Average Weekly Earnings Manufacturing ($ Per Worker)					
Industrial Power Sales (000 Kwh)	1,987,599	1,882,729	162,738	5.6	0.1
Mortgage Loans Closed ($000,000)[b]	298.7	241.5	21.5	23.7	28.0
Bank Deposits ($000,000)[c]					
Demand Deposits	712	725	855	-1.9	21.3
Time and Savings Deposits	2,032	1,941	2,194	4.7	9.2
Air Transportation					
Passengers Enplaning (Number)	1,374,788	1,416,136	118,195	-2.9	9.0
Passengers Deplaning (Number)	1,377,601	1,416,525	116,988	-2.8	7.6
Freight (Tons)	9,804	9,851	809	-0.5	37.6
Water Transportation					
Tulsa Port of Catoosa					
Tons In	470,027	469,866	37,848	0.0	-10.6
Tons Out	941,611	869,300	93,948	8.3	41.8
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	111,672	116,100	8,194	-3.8	30.7
Number of Units	1,770	1,979	117	-10.6	27.2
Residential—Multi Family					
Dollar Value ($000)	32,892	28,779	0	14.3	0.0
Number of Units	907	963	0	-5.8	0.0
Nonresidential					
Commercial ($000)	50,730	157,133	1,258	-67.7	-67.4
Industrial ($000)	14,969	33,390	5,069	-55.2	E
Institutional ($000)	24,682	23,626	59	4.5	-57.9
Nonbuilding					
Streets and Highways ($000)	18,953	23,888	463	-20.7	—
All Other Nonbuilding ($000)	5,766	4,737	197	21.7	17.6
Total Construction	259,666	387,654	15,240	-33.0	43.7
General Business Index	85.7	90.2	87.4	-5.0	2.9

[a]Includes revisions.
[b]By savings and Loan Associations.
[c]Deposits in large commercial banks.
E = Exceeds 600 percent.

OKLAHOMA CITY MSA

Category	12 Mos. '86	12 Mos. '85	Dec. '86	Percentage Change 12 Mos. '86/'85	Percentage Change Dec./Nov. '86
Employment (Number)[a]					
Labor Force	513,783	514,867	510,600	-0.2	-0.2
Total Employment	478,708	484,792	479,300	-1.3	0.1
Agriculture	5,417	4,600	4,500	17.8	-8.2
Nonagriculture	473,291	480,192	474,800	-1.4	0.2
Manufacturing	50,000	52,400	49,200	-4.6	-0.4
Mining	13,300	16,900	12,300	-21.3	0.0
Government	98,100	96,700	99,300	1.4	-0.6
Wholesale and Retail Trade	72,900	73,700	74,200	-1.1	0.8
Unemployment Rate (%)	6.8	5.8	6.1	—	—
Average Weekly Earnings					
Manufacturing ($ Per Worker)	437.66	443.22	459.06	-1.3	3.4
Industrial Power Sales (000 Kwh)	1,226,661	1,300,993	98,026	-5.7	-0.8
New Mortgage Loans ($000,000)[b]	317.9	391.4	24.0	-18.8	31.1
Bank Deposits ($000,000)[c]					
Demand Deposits	924	1,071	903	-13.7	6.0
Time and Savings Deposits	2,114	2,607	1,743	-18.9	-4.0
Air Transportation					
Passengers Enplaning (Number)	1,487,639	1,482,023	118,319	0.4	1.6
Passengers Deplaning (Number)	1,475,115	1,474,800	127,025	0.0	10.6
Freight Enplaned (Tons)	7,121	6,220	373	14.5	-21.5
Freight Deplaned (Tons)	10,789	18,129	718	-40.5	7.3
PERMIT-AUTHORIZED CONSTRUCTION[a]					
Residential—Single Family					
Dollar Value ($000)	189,924	211,563	9,615	-10.2	-3.6
Number of Units	3,129	3,508	157	-10.8	9.0
Residential—Multi Family					
Dollar Value ($000)	28,986	31,487	545	-7.9	—
Number of Units	1,002	1,522	22	-34.2	—
Nonresidential					
Commercial ($000)	84,583	156,872	5,586	-46.1	-38.1
Industrial ($000)	5,554	15,649	282	-64.5	41.0
Institutional ($000)	17,235	20,360	616	-15.3	-23.6
Nonbuilding					
Streets and Highways ($000)	48,463	53,964	3,466	-10.2	-39.2
All Other Nonbuilding ($000)	4,073	5,955	87	-31.6	-56.4
Total Construction ($000)	378,818	495,849	20,197	-23.6	-22.0
General Business Index	84.4	88.9	83.6	-5.0	1.2

[a]Includes revisions.
[b]By savings and loan associations.
[c]Deposits in large commercial banks.

Sources for all tables: Local utilities companies; 10th Federal Reserve District Member Banks; Federal Home Loan Bank of Topeka; Oklahoma Employment Security Commission; United States Department of Commerce, Construction Statistics Division; Oklahoma Department of Transportation, *Progressive Report of the Transportation Director*; Center for Economic and Management Research, College of Business Administration, The University of Oklahoma. The data for all tables were compiled by Marjorie E. Earley, Statistician for CEMR and Brian Hickey, Research Assistant.

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Business Highlights

Neil J. Dikeman, Jr.

1986 In Retrospect

Oklahoma's economic conditions during 1986 continued the downward pattern which began in the latter portion of 1982. The two most representative indicators of general business conditions—real personal income and the Oklahoma General Business Index—presented some concern in that each experienced decreases during the year, thus evidencing continued weaknesses throughout the State's economy. Despite the apparent problems in the economy suggested by the declines in these two indicators however, several of the sectors in the economy are beginning to show some improvements.

Retail Sales

Retail Sales during 1986 recovered nicely from the rather slow pace set in 1985 and registered a 9.1 percent gain. The major impetus for this increase was a 16.2 percent increase in durable goods sales which was triggered by a rise of 21.3 percent in auto sales and one of 22.8 percent in lumber sales. This is not to say that sales of nondurable goods failed to perform well because this segment of retailing was up by 5.4 percent over the 1985 level and might have shown an even more impressive rise had it not been for a near 5 percent drop in apparel sales — the fourth such decline in as many years — coupled with a decrease of 32.3 percent in sales of service stations and one of 3.2 percent in general merchandise sales. Thus, this somewhat restricted increase in sales of nondurable goods tended to offset the sharp increase in sales of durable goods and therefore resulted in the 9.1 percent increase in the total sales volume for the year.

Employment

An increase of 1.3 percent in the average monthly labor force during 1986, coupled with the fractional rise of less than 0.1 percent in employment raised the average monthly unemployment rate for the year to 8.3 percent which is significantly higher than the 7.1 percent rate noted during 1985. In terms of number of jobless, the number in Oklahoma during 1986 averaged 131 thousand each month which exceeded the average of 112 thousand experienced in 1985 by 19 thousand persons or by nearly 17 percent. This marks the second successive year in which the number of persons without jobs has risen and the second highest number of unemployed persons since 1980.

On the brighter side of the employment picture is the fact that the monthly average of persons with jobs also rose for the second successive year in spite of rather sizeable decreases in agriculture, manufacturing, mining and construction employment. Actually, the gain came about due to increases in employment in services, transportation, utilities and other similar economic sectors.

Construction

The dollar volume of construction activity, as measured by building permits issued, declined for the third successive year to less than $900 million which was a loss of nearly 21 percent and was its lowest total since 1970. This latest drop in construction activity was due principally to significant decreases in commercial and industrial building which were accompanied by more modest declines in single family residential building, institutional building and the "all other" building category. However, on the plus side was an increase of 10.4 percent in street and highway building and a 2 percent increase in the value of multifamily residential building during the year.

The one bright spot in the construction picture is the fact that the annual rate of decline in building activity is slowing down as is demonstrated by the fact that the 1983-1984 rate of decline was 22.6 percent, the 1984-1985 rate was 39.1 percent and the 1985-1986 rate was reduced to less than 21 percent.

Banking and Finance

For the first time in recent history, deposits in Oklahoma financial institutions declined and the drop was a sizeable 3.8 percent. The principal absolute loss occurred in savings account levels which were off the 1985 total by $910 million or 3.4 percent, while the $347 million decline in demand deposit accounts was the larger relative decrease.

The reasons for a decline in deposits include the losses of large deposits attributable to the failures of banks and thrift institutions as well as the skepticism on the part of many bank customers as to the reliability of depositories in general which has caused them to place portions of their funds, previously held in banks and other depositories, in investments which they perceive as having greater safety than is available in existing financial institutions. Finally, there is some indication that the declining interest rates and the relative lack of viable loan markets are causing some financial institutions to refuse deposits because the margin between what increased deposits will earn and the interest costs on such deposits is rapidly decreasing.

Thrift institutions, by themselves, present a brighter picture in that assets of these operations were 3.2 percent higher than in 1985 and the volume of new mortgage loans made was 6.5 percent above last year. It is of note that the rise in mortgage loans was the first such increase in this indicator in the past three years. It is entirely possible if not probable that the recent increase in mortgage loans was attributable in great measure to the refinancing of a large number of long term loans in order to take advantage of lower interest rates as well as to the high volume of housing and other real estate being sold at distressed prices by the FDIC as well as some lending institutions.

Manufacturing

Manufacturing activity in Oklahoma during 1986, as measured by manufacturing employment declined for the second successive year as plant closings and work force reductions continued to plague the State. To illustrate the degree to which manufacturing activity has declined during the past 5 years, in 1981, the year of peak employment in this sector, a total of 199 thousand persons were employed by the manufacturing sector whereas by 1986, only about 163 thousand manufacturing jobs existed in the State. This represents a loss of 36 thousand relatively high paying jobs. On a somewhat more optimistic note, the rate of decline in manufacturing jobs has tended to be reduced since the 9 percent drop which occurred between 1981 and 1982.

Energy

As might be expected, the energy sector in 1986 presented the bleakest of pictures. First, the production of natural and casinghead gas fell to 1.77 trillion cubic feet which was the lowest volume of output of these energy sources since 1977. When the average annual price of these commodities in 1986 of $1.51 is considered however, it is surprising that the decline in production was not more severe due to the fact that when the 1986 price is deflated to 1977 dollar equivalents it is nearly identical to the 1977 price.

Crude petroleum and lease condensate production during 1986 followed much the same pattern as that of natural and casinghead gas in that it declined by 5.1 percent to 143 million barrels—the lowest level in the past 30 years. Here again, the average annual price of $14.05 per barrel was the major contributor to the decline as it fell by 48.7 percent from the 1985 level.

Personal Income

As noted earlier, despite a fractional rise in personal income during 1986, after removal of the effects of inflation, real income or the actual purchasing power of Oklahomans declined marking the second successive year in which the real income of Oklahoma consumers was less than during the previous year.

Much of the slowdown in the rate of increase in personal income can be attributed to the changes which have occurred in the structure of the State's work force where losses in high paying jobs in manufacturing mining and construction have been offset by lower paying jobs in the trades and services thus resulting in a minimal change in total employment but a much larger change in income. As an example of the wage differentials which exist between these types of jobs, it is noted that in 1986 the average weekly wages paid manufacturing workers was nearly $405 while the average retail worker received less than $190. In addition, the average weekly wages paid to all workers have tended to decline somewhat particularly in the construction industry as well as the retail trade sector, both of which experienced their second successive annual reduction.

Added to the reduced rate of increase in wages and salaries are decreases in proprietors and property income which are attributable to bankruptcies, business failures, land value depreciation and reduced rent and royalty payments. Only an increase in the category of transfer payments which include pensions, unemployment insurance, OASI payments, Veterans benefits plus other types of payments to individuals for services they do not currently perform prevented total personal income in terms of current dollars from declining.

The Oklahoma General Business Index

Considering the changes which occurred in the economic indicators discussed above, it should come as no surprise that the General Business Index for the State suffered its second successive decline during 1986. This most recent drop in the index was the most severe since 1983 and brought it to its lowest level since 1980.

The Outlook

The relative lack of vigor demonstrated by the major economic indicators suggests that the economy of Oklahoma will remain relatively stagnant during at least the first half of 1987 and more probably through the first three quarters of the year. Assuming that the national economy remains healthy as many economists expect, and that the new plant openings and plant expansions which have been announced actually take place, some

improvements in the economy should become evident during the latter portion of the year and become even more pronounced during 1988.

Retail Sales

Retail Sales during 1987 are not likely to match the rate of increase experienced in 1986 principally because of the unusual influence that automobile sales had on last year's volume. It will be recalled that during two periods in 1986 low interest loans were offered by the major automobile manufacturers and consumers engaged in a year end automobile buying surge in order to take advantage of current federal tax laws before their expiration at the end of the year. These events will probably not occur during 1987. Also, lumber and building materials sales are not expected to keep pace with their 1986 growth which was caused primarily by a sharp increase in remodeling and repair of existing housing. Thus, sales of durable goods during 1987 are expected to decline slightly while sales of such non-durables as food, pharmaceuticals and restaurants should match the gains of 1986 causing an overall increase in non-durable goods sales of about 6 percent. As a result of these divergent sales patterns, total sales in 1987 should rise by about 3 percent to $18.8 billion.

Employment

Except for normal seasonal fluctuations, very little change is expected in the employment picture during the first half of the year. However some increases should be noted in the total number of persons employed in the third quarter as new plant openings occur and construction activities pick up. This suggests that the principal increases will occur in the manufacturing sector. The level of construction employment should also enjoy some gains later in the year when construction of a naval facility on Tinker Air Force Base commences. The expected increases in these two important sectors should trigger some additional employment gains in the trades and services sectors. Conversely, little if any changes are contemplated in mining and agricultural employment throughout the year and as a result average monthly employment in the State during 1987 should increase by about 0.2 percent to a total of 1,465,000 workers which represents a gain of 3 thousand jobs during the year.

Construction

There appears to be little hope that the total dollar volume of construction will increase during the year but the rate of decrease should be reduced materially. This forecast is based on several factors among which are: a) the surplus of both single family and multifamily housing that is still available at bargain prices significantly dims the outlook for any increase in residential building activity; b) office and shopping center vacancy rates are well above normal so that there is not likely to be a great demand for additional commercial construction; and c) what little industrial building that will occur will probably be in plant expansions or small plant projects.

What these factors indicate is that residential building during 1987 will remain at about 1986 levels although the dollar volume of multifamily dwellings may decline by as much as 8 percent. Commercial building will likewise remain at about 1986 levels while industrial building should show a slight increase of about 1 to 2 percent.

On a brighter note, the approval of the establishment of a naval aviation facility on Tinker Air Force Base should contribute to a sharp rise in institutional building. In addition, street and highway construction—largely in the form of repair and maintenance—is also expected to increase at about last year's level and these two gains coupled with the expected increase in industrial building should restrict the decline in the dollar volume of construction activity during 1987 to between 5 and 7 percent which will be a distinct improvement over the 21 percent drop which occurred in 1986.

Banking and Finance

Just at a time when the banking crisis appeared to be nearing an end, another major bank closing is announced. This suggests that the shake out of marginal and submarginal institutions will continue well into 1987 with a concurrent decline in deposits in other types of financial institutions. However, the outlook for 1987 insofar as deposits are concerned is for a less severe decline than the 1986 drop of 3.8 percent. Currently, it appears that deposits in all Oklahoma financial institutions during 1987 could be as much as 2 percent below 1986.

Energy

At currently forecasted prices for crude petroleum and natural gas, it is probable that production of these two sources of energy will remain at or near 1986 levels. This means that the value of crude petroleum and natural gas produced in Oklahoma during 1987 will range between $4 billion and $5 billion. Of course, should the average price of crude oil reach $18 and that of natural gas approach $2 per mcf, the value of total output during the year could reach $6 billion which is about the level of 1980.

Personal Income

The projected increases in manufacturing and contract construction employment during 1987 and the effect these gains will have on employment in the trades and services should result in rather a healthy increase in wages and salaries paid to Oklahoma workers. In addition to the impact these employment increases will have on wages and salaries, they will also have a less direct but positive effect on property and proprietors income and thus will cause total personal income in the State to reach $42.5 billion—an increase of 4 percent. This should mean an increase in real personal income of about 0.5 percent.

Oklahoma General Business Index

The culmination of the divergent patterns of change discussed above is expected to result in an increase of about 2 percent in the General Business Index to a monthly average of 92.9.

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Impacts of the Federal Budget Balancing Act on the Oklahoma Economy

David Penn

Introduction

The issue of the federal deficit has long generated spirited discussion regarding the impact of debt financing on interest rates, the balance of trade, and long-run economic growth. In 1985, Congress took a stand on the issue by passing the Balanced Budget and Deficit Control Act, better known as Gramm-Rudman-Hollings (GRH). Supporters saw GRH as a means of limiting the rate of growth of federal spending, reducing pressure on interest rates, and eventually improving the balance of trade.

These aspects of the Balanced Budget Act have received quite a lot of attention. This article examines some of the effects of GRH that receive less attention: the impact on regional economies, in particular, Oklahoma. The first section outlines the major provisions of GRH, followed with an examination of the impacts on federal expenditures. The third and fourth sections discuss the effect on federal outlays in Oklahoma, giving attention to the distribution of impacts across the state. The effects of three alternative spending cuts are examined, following with a summary and conclusions section.

The Balanced Budget Act of 1985

Signed into law in 1985, the Balanced Budget and Emergency Deficit Control Act of 1985—better known as the Gramm-Rudman-Hollings Act—does two major things: (1) requires a balanced federal budget by fiscal year 1991, and (2) enforces this requirement by mandating across the board spending cuts if annual target deficits are not achieved. To accomplish a balanced budget, the Act requires limited cuts for fiscal year 1986 and annual deficit reductions of $36 billion thereafter, reducing the 1986 budget deficit of $220.5 billion to zero by the first day of fiscal year 1991. Congress and the president are free to determine the appropriate means of deficit reduction, as long as the annual target deficits are met. This may include tax increases, asset sales, cuts in outlays, or a combination of the three. However, if the annual deficit targets are not met, the Act requires across the board cuts in a limited number of programs referred to below as the Gramm-Rudman-Hollings (GRH) base.

The Balanced Budget Act has not been without controversy, especially regarding constitutional separation of powers issues. In July of 1986, the U.S. Supreme Court ruled unconstitutional a provision of the Act that required the U.S. General Accounting Office (GAO) to determine whether Congress had met the requirements of the Act, and if not to calculate and order the required spending cuts. The Comptroller General of the GAO—a Congressional appointee—would in effect be required to enforce the law, a governmental function that the Court determined to belong to the executive branch of the government, not the legislative branch. Congress must relinquish its removal powers over the Compiroller General in order to restore the provisions of the Act requiring automatic spending cuts. Although this section was struck down, a fallback procedure in the law provides for floor votes on spending cuts if deficit targets are not reached through the usual budgetary process.[1]

The major players involved in determining the deficit and required budget cuts are the Office of Management and Budget (OMB), the Congressional Budget Office (CBO), and the General Accounting Office (GAO). The Act requires OMB and CBO to prepare estimates of revenues and outlays for the coming fiscal year, determine whether the deficit falls within $10 billion of the target deficit, and estimate the expected rate of real economic growth. The provisions of the Act may be suspended by Congress if two consecutive quarters of negative economic growth are expected.

OMB and CBO must calculate the base from which across the board cuts will be made and the percentage cuts in the base programs that would be required to meet

deficit targets. These figures are reported to the General Accounting Office, which reports to the president and to Congress its estimates of the deficit and required spending cuts by August 25 of each year. The original procedure in the Act required the President to sequester funds as provided in the GAO report, effective at the beginning of the fiscal year on October 1. Since this provision has been invalidated by the Supreme Court, the fallback procedure in the Act establishes a Temporary Joint Committee on Deficit Reduction, consisting of the membership of the budget committees of both houses of Congress. Within five days, the Joint Committee sets forth the contents of the GAO report to the House and Senate in a joint resolution, where it is voted on. The president issues a final sequester order effective October 15.

If the estimated deficit is $10 billion or more greater than the target deficit, the excess deficit is eliminated by dividing cuts equally between defense and non-defense, subject to several exemptions and special rules. These figures are adjusted by deducting outlays for cost of living increases for several programs—mostly military and civilian retirement—with the savings spread equally between defense and non-defense programs. Special rules in the Act permit only limited cuts in several programs such as child support, foster care, and unemployment compensation. Cuts in Medicare and medical care programs including migrant health, Indian health, community and veterans' medical care are limited to 2 percent for any particular fiscal year under the special rules section of the Act. Cost of living adjustments for social security and railroad retirement are specifically exempted from cuts under the Act.

After deducting the cost of living adjustment and all the exempt and programs subject to special rules, only 28 percent of total outlays remain in the base from which across the board cuts can be made. Major programs excluded from the Gramm-Rudman-Hollings (GRH) base for spending cuts include:

- Interest payments on the national debt;
- Military and civilian retirement;
- Social security and railroad retirement;
- Funds obligated in previous fiscal years; and
- Low income programs.

The Act has affected the federal budget in two fiscal years. In fiscal year 1986, the provision of the Act that mandated across the board cuts was invoked, resulting in cuts of $11.7 billion in programs included in the GRH base. Eligible defense programs were cut by 4.9 percent, while expenditures for non-defense programs were reduced by 4.3 percent. In fiscal year 1987, the CBO and OMB determined that $9.4 billion needed to be trimmed from the deficit in order to come within $10 billion of the $144 billion target deficit for the year. Relying on a mixture of one-time fixes including the sale of Conrail; the sale of agricultural, housing, and student loans; and various budgetary manipulations, Congress passed and the president signed the budget reconciliation bill (PL 99-509) in October. The reconciliation bill reduced the expected deficit by $11.7 billion. This reduction, along with the $11 billion expected this year from the tax reform act, allowed Congress to achieve the $144 billion deficit target.[2]

The economy, however, is not likely to grow as quickly as expected in the 1987 deficit projections. A weakening economy means lower revenues and a higher than expected deficit. Thus, the achievement of the $144 billion deficit target for fiscal 1987 will probably turn out to be illusory. In fact, some experts are predicting that the actual deficit will come in at the $165 billion to $180 billion range, greatly exceeding the target. If so, very large cuts—perhaps as much as $70 billion—would be required to meet the 1988 target deficit of $108 billion. Cuts of that magnitude would only place more downward pressure on the rate of economic growth in Oklahoma. Unless the national economy shows signs of renewed growth, pressure on Congress to lower the deficit targets or extend the deadline for a balanced budget past fiscal year 1991 could well result in alterations to the Act.[3]

Impacts on the Federal Budget

Most budget balancing spending cuts will likely be made in programs included in the GRH base, whether or not the enforcement portion of the Act is invoked. If Congress and the president are unable to agree on a budget that meets the target deficit, thereby invoking the provisions of the Act, most non-defense expenditures and a significant portion of defense outlays would be exempt from across the board cuts. Table 1 shows outlays for defense and non-defense programs; exemptions and special rules allowed by the act; and outlays included in the GRH base in fiscal year 1986. Out of the total defense budget of $273 billion, $96 billion in obligated funds were excluded from the GRH base. However, the Act gives the president the authority to apply limited cuts to military personnel accounts or to exempt personnel entirely from cuts, thus forcing defense procurement to absorb all of the defense portion of sequesters. In the cuts required to the fiscal year 1986 budget, President Reagan exercised his authority under section 252 (a) (2) (B), exempting $61.3 billion in military personnel accounts from the GRH base. The president may also terminate or modify existing defense contracts, crediting the savings to the required cuts.

The non-defense side of the budget amounted to $723.8 billion in fiscal year 1986. Major exemptions from across the board cuts include net interest ($137.4 billion); social security and railroad retirement ($202.3 billion); low income programs ($61.0 billion); and programs subject to special rules ($87.1 billion). Activities included in low income programs are summarized in the Appendix. After deducting these exemptions and allowing for funds obligated in previous years, $105.2 billion of the non-defense budget remains eligible for across the board cuts, representing only 14 percent of the non-defense budget.

Impacts on Federal Outlays in Oklahoma

The Federal Government spent a considerable amount of money in Oklahoma in fiscal year 1985: $9.1 billion dollars, accounting for 18 percent of gross state product.

TABLE 1

Constructing Gramm-Rudman-Hollings Base for Federal Budget Fiscal Year 1986 (billions of dollars)

Defense	Amount
Outlays	**$272.8**
Less Adjustments:	
Obligated Funds	**102.1**
GRH Base	**170.7**
Military Personnel	**67.8**
Other	**102.9**
Non-Defense	
Outlays	**$723.6**
Less Adjustments:	
Net Interest	**137.4**
Offsetting Receipts	**+50.4**
Social Security and Railroad Retirement	**202.3**
Veterans Compensation & Pension Programs	**14.3**
Earned Income Credits	**1.3**
Low Income Programs	**61.0**
Programs with Automatic Spending Increases	**48.6**
Special Rule Programs	**87.1**
State Unemployment Benefits	**18.2**
Obligated Funds and Other	**98.8**
TOTAL	**618.6**
GRH Non-Defense Base	**105.2**

Source: Office of Management and Budget and Congressional Budget Office, *Sequestration Report for Fiscal Year 1986 — A Joint Report to the Comptroller General of the United States, Federal Register*, Vol. 51, No. 10, January 15, 1986. Figure for military retirement taken from Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Fiscal Year 1987*.

Of this, grants to state and local government were $1.2 billion or 14 percent of federal outlays; defense department procurement and military salaries were $2.1 billion (23 percent); direct payments to individuals were $4.7 billion (52 percent); with non-defense procurement, salaries and wages, and other programs amounting to $1.1 billion (11 percent).

Table 2 applies the GRH rules to federal outlays in Oklahoma, resulting in the GRH base for the state. On the defense side, an estimated $203 million in obligated defense department funds and contracts are excluded from across the board cuts, resulting in a GRH base of $1,647 million. The Oklahoma GRH defense base consists overwhelmingly of personnel expenditures ($1.2 billion). By these estimates, eighty-nine percent of defense department expenditures in Oklahoma are subject to across the board cuts under GRH, compared with 63 percent nationally.

Federal expenditures in Oklahoma on the non-defense side of the budget were $7.32 billion in fiscal year 1985, not including interest payments on the national debt and offsetting receipts. Table 2 shows that $2.4 billion in outlays for social security and railroad retirement are exempt from across the board GRH cuts, as well as $882 million in programs covered by special rules. Other major exemptions include low income programs ($694 million); estimated prior year obligations ($1,135 million); and government retirement programs ($723 million). After deducting these exemptions, the base from which non-defense uniform GRH cuts must be made is $1,410.9 million. This figure represents 15.7 percent of non-defense outlays in the state, compared with the national GRH base of 16.5 percent of relevant non-defense expenditures.

The major items included in the non-defense GRH base for Oklahoma are shown in Figure 1. Salaries and agricultural payments account for 46 percent of the GRH non-defense base in Oklahoma. Grants to state and local government also constitute an important component, accounting for 38 percent of the GRH non-defense base. Grant programs include federal highway funds ($195 million); education programs, including student assistance and vocational education grants ($194 million); non-defense procurement contracts ($188.2 million); community development and housing programs ($147 million); and health programs ($135 million). These

TABLE 2

Gramm-Rudman-Hollings Base in Oklahoma Based on Fiscal Year 1985 (millions of dollars)

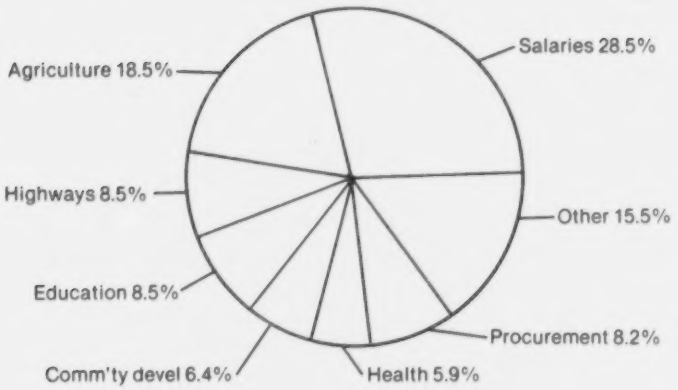
Defense	Amount
Outlays	**$1,850.2**
Adjustments:	
Obligated Funds (estimated)	**202.8**
GRH Base—Defense	**1,647.4**
Personnel	**1,253.3**
Other	**394.1**
Non-Defense	
Outlays	**$7,319.4**
Adjustments:	
Social Security and Railroad Retirement	**2,398.0**
Veterans Compensation & Pension Programs	**303.5**
Earned Income Tax Credits	**17.7**
Low Income Programs	**693.8**
Programs with Automatic Spending Increases	**723.0**
Special Rule Programs	**882.2**
Unemployment Benefits	**13.8**
Obligated Funds (estimated)	**1,135.6**
TOTAL Adjustments:	**6,167.6**
GRH Base — Non-Defense	**1,151.8**

Source: Compiled from U.S. Department of Commerce, Bureau of the Census, *Consolidated Federal Funds Report*, computer file for fiscal year 1985.

Note: Funds obligated in Oklahoma were assumed to be proportional to obligated funds in outlays nationwide. Non-defense obligated funds were calculated as the proportion of obligations to non-defense outlays, less net interest and offsetting receipts. Defense obligations were estimated as the proportion of obligated funds in outlays less military personnel.

FIGURE 1

GRH Non-Defense Base for Oklahoma



Non-defense GRH base = 1,151.8 million

items and programs will absorb the bulk of federal budget cuts, representing 84 percent of the non-defense GRH base for the state.

State and local government in Oklahoma will be hard hit by federal budget balancing requirements. In fiscal year 1984, for example, state government received $1,056 million in federal outlays and city governments received $104 million, accounting for 23 percent and 7 percent of total revenues, respectively.[4] Approximately 75 percent of these funds are included in the GRH non-defense base. These outlays will almost certainly undergo further cuts by Congress in the budget process just beginning for fiscal year 1988.

Distribution of Federal Budget Cuts in Oklahoma

The distribution of the effects of budget balancing cuts in Oklahoma depends on two factors: (1) the distribution of federal funds in the state, and (2) the percentage of these funds that are subject to across the board cuts, i.e., included in the GRH base. Figure 2 shows the distribution of federal outlays to counties in fiscal year 1985. Sixty percent of federal outlays in Oklahoma went to ten counties: Oklahoma, Tulsa, Comanche, Canadian, Cleveland, Garfield, Muskogee, Jackson, Pittsburg, and Pottawatomie. Four counties received nearly half of federal expenditures, with Oklahoma County alone receiving $2.47 billion, or 27 percent of all federal outlays in Oklahoma. The other three counties are Tulsa $984 million (11 percent), Comanche County $700 million (8 percent), and Canadian County $262 million (3 percent).

The percent of vulnerable federal outlays—outlays subject to the board cuts—to total federal outlays varies from 76 percent (Comanche County) to 7 percent (McCurtain County), with a median of 29 percent (Woodward County). Figure 3 shows that most of the counties that are heavily dependent on outlays included in the GRH base are located in the western half of the state. This should not be surprising, since the federal programs that assist the low income areas of the eastern portion of the state are largely exempt from cuts under GRH.

There appears to be little correspondence between the dollar amount of total federal outlays in a county and the proportion subject to across the board cuts. For example, even though Comanche County received $700 million and Cimarron County got only $20 million in fiscal year 1985, more than 58 percent of the federal expenditures in both these counties are vulnerable to across the board cuts. On the other hand, of the $984 million received in Tulsa County only 36 percent is vulnerable to cuts under Gramm-Rudman-Hollings, compared with 61 percent of the funds received in Oklahoma County.

The local impacts of federal budget cuts depend not only on the dollar magnitude of the potential cut, but also on the size of the local economy. Relatively affluent counties can absorb large dollar cuts in federal outlays more easily than can poor counties. These counties will adjust to even modest cuts with great difficulty.

The ability of a local economy to absorb cuts in federal outlays can be estimated by examining the ratio of federal funds included in the GRH base to local personal income. This ratio will approximate the reliance of local economic activity on federal outlays that are vulnerable to budget balancing cuts. A large value for the ratio indicates a relatively dependent local economy, while a low ratio shows that the local economy is relatively less dependent on vulnerable federal expenditures. Figure 4 shows the ratio of the federal funds constituting the 1985 GRH base to 1984 county personal income. Forty-six counties—including Tulsa County—are relatively well-equipped to absorb cuts, with the GRH base accounting for no more than 8 percent of personal income. These counties generally are found in the northeast and south central portions of the state.

The next group is more dependent on federal funds that are subject to cuts: vulnerable federal funds represent between 8 percent and 25 percent of personal income in

FIGURE 2

Federal Outlays in Oklahoma
Fiscal Year 1985

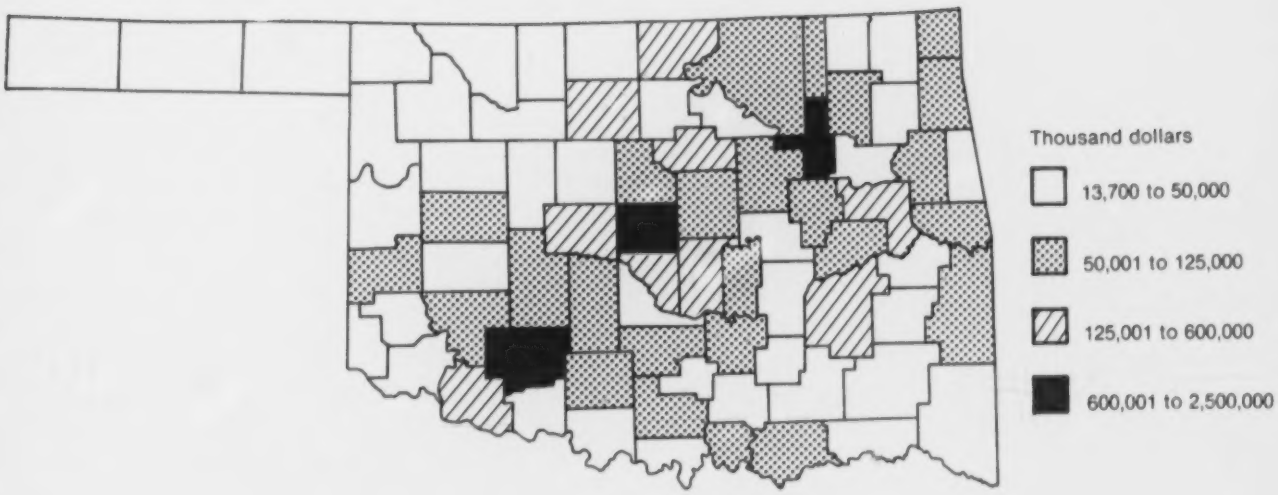


FIGURE 3

Percent of Federal Outlays
Subject to Cuts Under Gramm-Rudman-Hollings

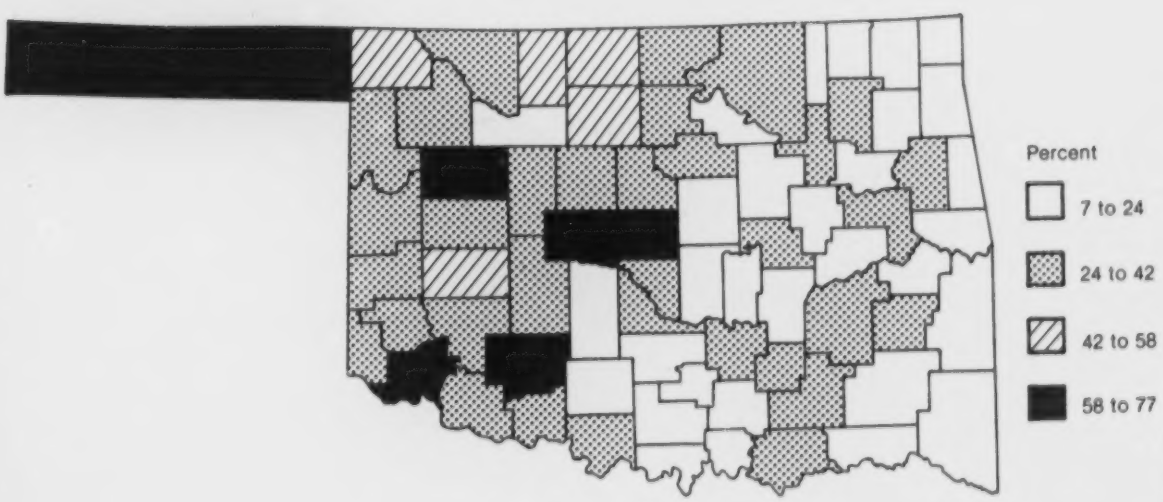


TABLE 3

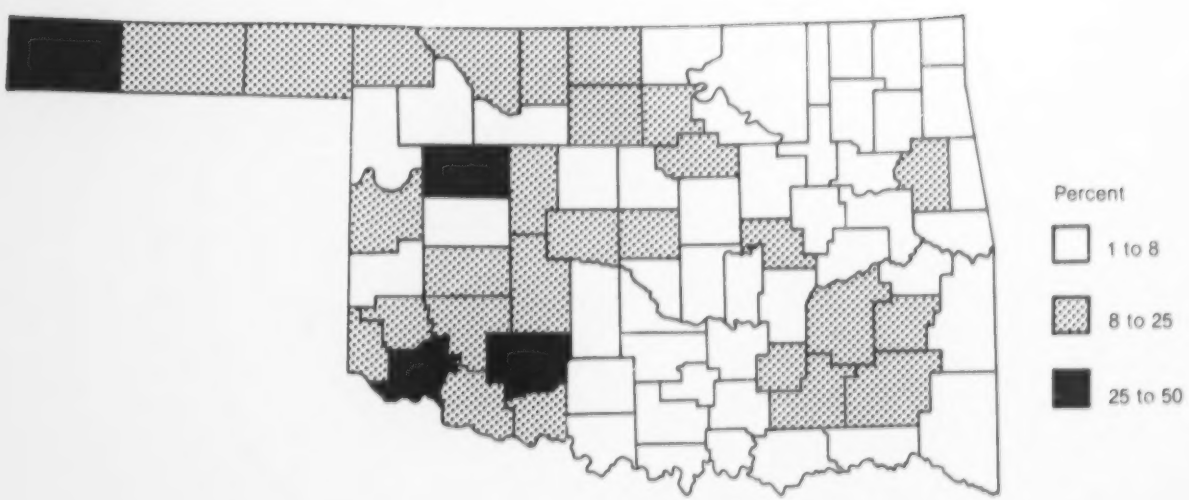
Distribution of Federal Funds in GRH Base to Cimarron, Comanche, Dewey, and Jackson Counties Fiscal Year 1985 (thousands of dollars)

Category	Cimarron	Comanche	Dewey	Jackson
Agricultural Programs				
Wheat Stabilization	$ 4,852	$ 2,083	$ 5,459	$ 6,540
Feed Grain Stabilization	1,831	4	6	1
Cotton Stabilization	0	460	0	6,591
Crop Insurance	67	0	21,518	22
Other	727	798	488	370
TOTAL	7,477	3,345	27,471	13,524
Highway Funds	5,798	4,224	40	4,237
Salaries and Wages				
Defense	1	396,229	4	75,882
Postal Service	375	8,257	1,126	2,002
Other	465	7,551	128	530
TOTAL	841	412,037	1,258	78,414
Procurement				
Defense	0	88,502	0	6,784
Postal Service	44	965	132	234
Other	0	9,852	0	253
TOTAL	44	99,319	132	7,271
Other Federal Funds	190	12,769	389	6,613
TOTAL	14,350	531,694	29,290	110,059
Percent of County Personal Income	27.3	46.7	38.3	36.5

Source: Compiled from U.S. Bureau of the Census, *Consolidated Federal Funds Report: Fiscal Year 1985*, computer file.

FIGURE 4

Gramm-Rudman-Hollings Base as Percent of Personal Income



these counties. For example, the GRH base for Oklahoma County in fiscal year 1985 equalled 17 percent of county personal income.

The third group of counties demonstrate a relatively large economic dependence on federal funds subject to across the board cuts; these are Cimarron, Comanche, Dewey, and Jackson Counties. Table 3 shows the specific federal outlays in the GRH base that are distributed to these counties. Agricultural programs and defense department expenditures account for the bulk of the federal funds received by these four counties. Crop stabilization payments are most important to Cimarron County, while Comanche and Jackson Counties are very heavily dependent on wages, salaries, and procurement expenditures from the Department of Defense. Thus, under the most reasonable of assumptions, the economies of these counties will be most severely affected by budget balancing cuts.

Dewey County appears in the this group due to the large crop insurance payment in fiscal year 1985, indicating a large crop failure due to drought or flood. Since crop failures are not likely to occur regularly in Dewey County, it is unlikely that the county will be included in the list of most dependent counties in later years. However, the dependence of the local economy on a large albeit non-recurring federal payment illustrates the future economic impacts for other counties experiencing drought or floods if these funds are cut or eliminated.

Simulated Budget Cuts

Having described the base for Gramm-Rudman-Hollings budget cuts, this section simulates the effects of alternative GRH budget cuts on the Oklahoma economy. Three alternative scenarios are examined: the first scenario simulates the effects of a $30 billion cut, while the second simulates a $60 billion cut. Both these situations assume that military personnel are not exempted from cuts under GRH. Given the priority on military spending in the Reagan Administration, this assumption may not be realistic. In 1986, for example, the Administration invoked provisions of the GRH Act that allowed exemption of military personnel accounts from across the board cuts. Thus, the third scenario examines the effect of a $30 billion cut with the assumption that military personnel accounts are exempt from across the board cuts.

Scenario I

In Scenario I, the deficit for the coming fiscal year is assumed to be $30 billion more than the target deficit. Assuming that the Congress and the president are unable or unwilling to agree on cuts to reach the target deficit, the GRH process calls for equal $15 billion reductions in defense and non-defense outlays. Deducting cost of living adjustments from these figures results in further needed cuts of $14.5 billion in both and non-defense areas.[5]

Special rules in the Act require limited cuts to specific non-defense programs including medicare, foster care and adoption assistance, student loans, and various health care programs. Cuts in these areas are approximately $1.5 billion. Thus, the required non-defense across the board cuts are reduced to $13.0 billion, representing 12.4 percent of the non-defense GRH base, while defense would be cut $14.5 billion, or 8.5 percent of the GRH defense base.

TABLE 4

Scenario I — Impacts of $30 Billion GRH Cut on Federal Outlays in Oklahoma (millions of dollars)

Category	Defense	Non-Defense	Total
Reduction Required in GRH Base	$140.0	$142.8	$282.8
Cuts Under Special Rules	0.0	17.4	17.4
TOTAL Cuts	140.0	160.2	300.2

Table 4 demonstrates the impact of these cuts on federal expenditures in Oklahoma, assuming that outlay reductions are spread uniformly across the nation. Reductions in the defense GRH base are $140.0 million, while cuts in the non-defense base come to $142.8 million. Adding cuts arising from applying the special rules in the Act results in total non-defense cuts of $160.2 million, or 2.2 percent of non-defense federal outlays in Oklahoma. Adding defense and non-defense components results in total cuts of $300.2 million, or 3.3 percent of all federal outlays in Oklahoma.

Scenario II

Scenario II assumes that federal outlays are $60 billion more than the target deficit for the coming fiscal year. Again, outlay reductions would be split evenly between defense and non-defense programs, resulting in cuts of $30 billion each. Reductions in cost of living increases will still amount to be about $0.5 billion for both defense and non-defense, while the special rules portion of the Act will contribute $1.5 billion to the required non-defense reductions. The resultant cuts required in the defense and non-defense GRH bases come to 17.3 percent and 26.6 percent, respectively.

TABLE 5

Scenario II — Impacts of $60 Billion GRH Cut on Federal Outlays in Oklahoma (millions of dollars)

Category	Defense	Non-defense	Total
Reduction Required in GRH Base	$285.0	$306.4	$591.4
Cuts Under Special Rules	0.0	17.4	17.4
TOTAL Cuts:	285.0	323.8	608.8

The impacts of Scenario II cuts on federal outlays in Oklahoma are shown in Table 5. Total outlays are reduced by $608.8 million, representing 6.6 percent of all federal outlays in the state. Defense expenditures are cut by $285.0 million, and non-defense outlays are reduced by $323.8 million.

Scenario III

Scenario III simulates the effects of a $30 billion cut, with the proviso that military personnel are exempted from cuts by the president. Removing military personnel accounts from the federal GRH defense base decreases the outlays available to absorb needed cuts. As was shown in Table 1, the GRH defense base shrinks to $102.9 billion upon the removal of outlays for military personnel.

As in Scenario I, the defense portion of the budget will absorb cuts of $13.5 billion, all of this coming out of non-personnel accounts. Thus, regions that benefit from little defense spending other than personnel will be spared from large cuts. In Oklahoma, military personnel accounts represent 68 percent of defense spending in the state. Exempting these outlays from cuts means that the remaining unobligated funds—estimated at $394 million—will absorb all the cuts in defense outlays for the state. Table 6 shows cuts in defense programs will amount to $51.6 million in Oklahoma, instead of $140 million as occurred in Scenario I. Exempting part or all of military personnel accounts from cuts would be particularly beneficial to counties that contain military bases, including Comanche, Garfield, Jackson, and Oklahoma Counties.

TABLE 6

Scenario III — Impacts of $30 Billion GRH Cut on Federal Outlays in Oklahoma Military Personnel Exempt from Cuts (millions of dollars)

Category	Defense	Non-Defense	Total
Reduction Required in GRH Base	$51.6	$142.8	$194.4
Cuts Under Special Rules	0.0	17.4	17.4
TOTAL Cuts	51.6	160.2	211.8

In all of the scenarios described above, the cuts in federal government spending in the state represents just the first round of reductions to gross state product. Not included are the indirect impacts on business suppliers and the induced reduction in consumption spending by households. Using a multiplier for federal government spending in Oklahoma of 1.658, the final impact on gross state product (GSP)—including the direct, indirect, and induced effects of spending cuts—will be approximately two-thirds greater than the amounts shown. For example, the direct impact on gross state product of cuts in federal outlays in Oklahoma outlined in Scenario I is $300.2 million; the indirect and induced effects will likely be another $197.5 million resulting in total loss of goods and services produced in the state of $497.7 million, or 0.9 percent of gross state product for 1986. Similarly, the direct, indirect, and induced affects on gross state product from Scenario II budget cuts are $1,009.4 million; these cuts in federal outlays would reduce estimated 1986 GSP by 1.9 percent.[6] Since military personnel are exempt from cuts, the reductions in federal outlays generated by Scenario III would reduce gross state product by the smallest amount. Total direct, indirect, and induced reductions to GSP would be $351.2 million, reducing GSP by 0.67 percent.

State and local government and agriculture will be hit especially hard by budget balancing cuts. Assuming that cuts are made across the board, Scenario I would result in a loss of $53 million to state and local government and $26 million in agricultural programs, after deducting prior year obligations. A federal budget cut of $60 billion as described in Scenario II would reduce federal outlays to state and local government in Oklahoma by $116 million and cut spending for agriculture by $57 million. Spending cuts in these areas will make a bad situation worse for state government and the farm sector.[7]

Summary and Conclusions

The Balanced Budget and Fiscal Responsibility Act of 1985 promises to add additional uncertainty to the economic outlook for the state. Federal budget balancing cuts will heavily affect state government revenues and agricultural programs, sectors that are already experiencing considerable economic difficulty.

Areas in the eastern half of the state will be less affected by cuts under GRH than western portions of Oklahoma. Much of the federal outlays received in eastern Oklahoma consist of programs that are exempt from GRH cuts. These include AFDC, food stamps, child nutrition, Medicaid, and other income support programs.

The potential for greatest loss of income due to GRH cuts is found in areas highly dependent on spending for military personnel. The effects of federal budget cuts on local economies in Comanche, Garfield, Jackson, and Oklahoma Counties will depend to a great extent on whether military personnel are exempted from budget cuts.

Given the current slow growth of the economy, the federal deficit could range between $165 billion and $180 billion, far above the 1988 target of $108 billion. Calculations show that for each $1 billion cut in programs included in the national GRH base, federal outlays to Oklahoma will decline by approximately $10 million, assuming Oklahoma shares proportionally in the cuts. If military personnel are excluded from the base, a $1 billion federal budget cut would reduce federal outlays in the state by $7 million. The most likely case may be federal budget cuts from $30 billion to $60 billion. Reductions of this magnitude could reduce gross state product by one to nearly two percentage points, taking effect in late 1987.

Notes

[1]Jonathan Rauch, "GAO Role and Control at Stake," *National Journal*, 19 July 1986, pp. 1782-1783.

[2]See Office of Management and Budget and Congressional Budget Office, "Sequestration Report for Fiscal Year 1986: A Joint Report to the Comptroller General of the United States," *Federal Register*, 15 January 1986; and "Major Provisions of the Fiscal 1987 Reconciliation Bill," *National Journal*, 1 November 1986, pp. 2790-2797.

[3]Jonathan Rauch, "The Edge of the Abyss," *National Journal*, 6 September 1986, pp. 2117-2120.

[4]State of Oklahoma, *Executive Budget: Fiscal Year Ending June 30, 1986*, p. 325; and State Auditor and Inspector, *Annual Survey of City and Town Finances*, 1984, computer file, Oklahoma Department of Commerce.

[5]Cost of living adjustments are based on a 3 percent rate of inflation.

[6]Government spending multiplier from Center for Economic and Management Research, University of Oklahoma; estimate of gross state product taken from Office of Business and Economic Research, Oklahoma State University, *1986 Oklahoma Economic Outlook*.

[7]Example: federal outlays to state and local government are 37 percent of the GRH non-defense base and Scenario I will cut the non-defense base by $142.8 million. Consequently, state and local governments will lose .37 × $142.8 million = $53 million.

APPENDIX

TABLE A1

Low Income Programs Exempt from GRH Cuts
United States
Fiscal Year 1986
(billions of dollars)

Program	Amount
Grants to States for Medicaid	$24.7
Supplemental Security Income Program	10.2
AFDC Program	9.1
Food Stamps	11.7
Child Nutrition Program	3.9
Women, Infants, and Children (WIC) Program	1.6
TOTAL	61.2

Source: Executive Office of the President, Office of Management and Budget, *Budget of the United States Government, Fiscal Year 1987*.

TABLE A2

Low Income Programs Exempt from GRH Cuts
Oklahoma
Fiscal Year 1985
(millions of dollars)

Program	Amount
Grants to States for Medicaid	$299.6
Supplemental Security Income Program	124.3
AFDC Program	64.6
Food Stamps	139.9
Child Nutrition Program	41.5
Women, Infants, and Children (WIC) Program	23.9
TOTAL	693.8

Source: Compiled from U.S. Department of Commerce, Bureau of the Census, *Consolidated Federal Funds Report*, computer file for fiscal year 1985.

TABLE A3

Programs Subject to Special Rules
Oklahoma
Fiscal Year 1985
(millions of dollars)

Program	Amount
Medicare	$843.3
Child Support Enforcement	4.2
Foster Care and Adoption Assistance	2.9
Miner's Disability	6.0
Health Care	
Community Health	2.8
Migrant Health	0.1
Indian Health	18.3
Veterans Medical	4.6
TOTAL	882.2

Source: Compiled from U.S. Department of Commerce, Bureau of the Census, *Consolidated Federal Funds Report*, computer file for fiscal year 1985.

David Penn is an Economist for the Oklahoma Department of Commerce.

A Microanalytic Simulation of Federal Tax Reform on Oklahoma Tax Filing Units

Scott Turner

The U.S. House of Representatives and Senate both passed tax reform bills in 1986. The tax writers in the House and Senate approved a tax reform bill in August 1986 to overhaul the nation's tax system. The differences regarding tax reform in Congress were resolved and the tax reform bill passed by Congress was signed into law by President Reagan in October 1986 to be effective January 1, 1987.

The changes to the federal tax code will affect both individual and business items. The long range consequences of the changes will affect all major economic variables such as employment and GNP and will certainly affect the financial circumstances of individuals. The effects will not be equally distributed across states and across economic sectors. In fact, there will be major differences between persons living in different states.

It is the objective of this study to focus attention on only two immediate consequences of the proposed changes to the federal tax code. The first is the effect on Oklahomans as both individual federal and individual state tax filers. The second consequence is the effect on Oklahoma tax revenue. Business tax issues will not be addressed in this study.

It is also the objective of this study to provide empirical results for Oklahoma that can be compared with the results of a study of the 1986 Tax Reform Act sponsored by The Advisory Committee On Intergovernmental Relations (ACIR).[1] The empirical work done in this study is very elementary compared with the work reported in the ACIR study, but the work done in this study can serve as an outside check on the results reported for Oklahoma in the ACIR study.

Individual Consequences

The proposed changes in the federal tax code will affect Oklahomans in two very direct ways. First, most individuals in Oklahoma will pay less federal tax and secondly, they will pay more state income tax. The net effect of the federal tax code change will be the difference between these two changes. For example, the average taxpayer in Oklahoma in 1984 had average federal tax liability of $4000 and average state tax liability of $500. If the proposed plan resulted in an average federal reduction of $200 per tax return and the average state income tax increase is $100, then the net tax decrease for the average taxpayer would be $100. That is, what is stated to be a 5 percent decrease in federal tax liability is a 4.4 percent decrease in the total of federal and state income tax (if there is no change in state tax). However, if state tax increases 20 percent, as in this example, then the net decrease in federal and state tax is only 2.2 percent.

The relationship between the federal individual tax code and Oklahoma's individual tax code is a result of Oklahoma's code being coupled to the federal code. With only a few minor differences, Oklahoma's definition of adjusted gross income (AGI) is taken directly from AGI on the federal 1040. Also Oklahoma's definition of itemized deductions is identical to the federal definition of itemized deductions.

The proposed changes in the federal code will increase federal adjusted gross income (AGI) and will decrease itemizations. The increase in the federal tax base will be offset for most tax filers with increased personal exemptions, an increased standard deduction and a reduced tax rate. However, at the state level there will be an automatic increase in state income tax liability since coupling will produce increased taxable income without any changes in personal exemptions, the standard deduction or state income tax rates. The only condition under which an individual's state tax liability could decrease is to become a federal nonfiler since federal nonfilers are not required to file Oklahoma tax returns.

The extent to which an individual's state tax liability will

change depends upon the extent to which the individual's AGI and itemized deductions change. For example an individual tax filer not using any of the tax items that are going to be altered, for example individual retirement accounts, capital gains, the two earner adjustment, itemized deductions etc. will receive the full benefit of increased personal exemptions, increased standard deductions and reduced tax rates at the federal level without any change at the state level. Conversely, individuals with large amounts of the tax items whose status will be altered are the individuals that will have more federal tax liability. They will also have more state liability.

It should be noted that the effect of federal tax reform is much greater for individual filers in Oklahoma than for individuals in neighboring states. For example, there will be no state increase for individuals in Texas since Texas does not have a state income tax.

Oklahoma Revenue Effects

The impact of the 1986 Tax Reform Act on Oklahoma tax revenue is very significant at this time since Oklahoma has a very large revenue deficit. Estimates made in a study sponsored by The Advisory Committee For Intergovernmental Relations stated that Oklahoma individual tax liablity would go up by 18 percent when all the provisions in the 1986 Tax Reform Act are fully phased in.[2] The ACIR study used a comprehensive data base composed of both Statistics of Income (SOI) data and Current Population Survey (CPS) data. The purpose of the ACIR study was to estimate the impact of the Tax Reform Act at the state level. The microsimulation work in the ACIR study was done by Policy Economics Group, a Washington D.C. consulting firm. The data base developed by Policy Economics is proprietary and is not available for use in the research community.

Microanalytic simulation in this study uses the March 1985 Current Population Survey microdata file. This file contains demographic and income data for Oklahoma households in 1984. The CPS household, family and person records are used to identify Oklahoma tax units. Income data in the CPS is used to approximate federal adjusted gross income. The major tax items in the proposed bill not contained in the CPS are included in the file using data from Statistics of Income. For example, imputations for capital gains, IRAs and itemized deductions are made using SOI data. The work done in this study is similar to the tax policy work done in the TRIM Model.[3]

The microanalytic simulation modeling done in this study can also be described as an elementary version of the policy analysis simulation work done by the Office of Tax Analysis in the U.S. Treasury Department and by the revenue estimation staff of the Oklahoma Tax Commission.[4] The Treasury Department uses a file of matched data from the SOI and CPS.[5] The Oklahoma Tax Commission uses samples of Oklahoma tax returns, the most recent being for tax year 1983. The simulations in this study are implemented using SAS whereas the U.S. Treasury and the Oklahoma Tax Commission use FORTRAN models.

The results obtained by microsimulation in this study are presented in Tables 1 and 2. Table 1 gives the simulated number of 1984 Oklahoma tax returns by selected AGI classes. Table 1 also gives simulated Oklahoma tax liability under current law (1985) and simulated tax liability using the provisions in the 1986 Tax Reform Act for the returns represented in this table. The AGI classifications in Table 1 are made using current law. For example, the approximate number of tax returns that were filed in 1984 with AGI between $20,000 and $30,000 is 220,000; the estimated Oklahoma tax liability for this set of returns is $117 million using the 1985 tax code, and the estimated Oklahoma individual tax liability for the same tax returns using the provisions in the 1986 Tax Reform Act is estimated to be approximately $160 million. It is also observed from Table 1 that aggregate state revenue would increase from $722 million to $898 million using simulated 1984 tax returns.

Revenue from the Oklahoma individual income tax has declined since fiscal 1985. However, there is only an approximate 5 percent difference between fiscal 1985 and fiscal 1987. The data extracted from the March 1985 Current Populaton Survey is not that different from the data that is expected to appear in the March 1987 Current Population Survey. The relationship observed in this study between Oklahoma tax liability using the current tax code and using the provisions in the Tax Reform Act for 1984 data can be used as a proxy for the expected

TABLE 1

Oklahoma Individual Tax Revenue Under the 1985 Tax Code and the Provisions in the 1986 Tax Reform Act Using Simulated 1984 Oklahoma Individual Tax Returns

AGI Class	Number of Returns (thousands)	Tax Liability 1985 Tax Code (millions)	Tax Liability Tax Reform (millions)
$0 - $10,000	448	$ 8	$ 12
$10,001 - $20,000	315	68	89
$20,001 - $30,000	220	117	160
$30,001 - $50,000	215	242	290
$50,001 - $100,000	72	163	212
$100,001 - ON	14	124	135
TOTAL	1,284	722	898

relationship using 1987 data. Consequently, the results from this study indicate that Oklahoma individual income tax revenue would increase by approximately 24 percent as a result of the proposed tax reform bill when it is fully phased in. The magnitude of the change in state revenue could be as much as $170 million in fiscal 1989.

The items included in the simulation that increase the federal state tax base are the excluded portion of capital gains, IRA contributions, nonmortgage consumer interest, the two earner adjustment, medical expenses over 5 percent but less than 7.5 percent of AGI, and state sales tax. The aggregate of all the tax change items are given in Table 2.

From Table 2 it is observed that the aggregate change in the Oklahoma tax base is approximately $2.8 billion using 1984 tax data. From Table 1 it is observed that this change in the tax base produces a change in tax liability of approximately $176 million using 1984 data. The average tax rate applied to the change in the tax base is 6.3 percent. From Table 2 it is seen that most of the tax base changes are for tax returns with AGI in excess of $20,000 and consequently are in the highest marginal tax bracket for Oklahoma Method I tax calculations. The maximum marginal rate for Method I is 6 percent. The average increase of 6.3 percent is a consequence of two factors. First, most of the tax base changes are for tax returns in the 6 percent bracket, and second, the increased tax base moves approximately 300,000 tax returns from the Method II rate schedule to the Method I rate schedule. The movement of tax returns from Method II to Method I increases the average tax rate on income that previously had a tax break due to Method II. Also, many of the tax returns that are still filed using Method II are pushed into higher tax brackets in the Method II rate schedule.

The results given in Table 2 are on the one hand an understatement of the increase in Oklahoma tax liability since several of the items that will increase the federal tax base are not included in the study, and on the other hand an overstatement of the consequences since behavioral responses that would dampen the increase in the tax base are not included. For example, imputations for investment tax shelters are not included due to the absence of data, and behavioral responses for the actual realization of capital gains and itemized consumer interest are not included for the same reason. These omissions could easily explain the difference (18 percent versus 24 percent) between the results of this study and the results of the ACIR study. Both studies report that the 1986 Tax Reform Act will have a dramatic impact on Oklahoma tax revenue.

TABLE 2

Increase in the Federal Tax Base for Oklahoma Tax Returns Resulting from the 1986 Tax Reform Act[a]

AGI Class	Number of Returns (thousands)	Change in Tax Base (millions)
$0 - $10,000	448	$ 232
$10,001 - $20,000	315	296
$20,001 - $30,000	220	422
$30,001 - $50,000	215	739
$50,001 - $100,000	72	894
$100,001 - ON	14	216
TOTAL	1,284	2,799

[a]Items include IRA contributions, nonmortage interest, the two earner adjustment, state sales tax, medical expenses over 5 percent but less than 7.5 percent of AGI, and the excluded portion of capital gains.

Another interesting result taken from this study is that (on the average) at least 50 percent of the reduction in individual federal tax liability resulting from the 1986 Tax Reform Act will go directly to the state in the form of an increased state tax liability for Oklahoma tax filers.

Notes

[1]Advisory Commission on Intergovernmental Relations, "Preliminary Estimates of the Effect of the 1986 Federal Tax Reform Act on State Personal Income Tax Liability," ACIR (Washington, D.C., December 1986).

[2]*Ibid.*

[3]H. Beebout and P. Bonina, "TRIM: A Microsimulation Model for Evaluating Transfer Income Policy. Working Paper No. 971-4," The Urban Institute (Washington, D.C., 1973).

[4]Roy Wyscarver, "The U.S. Treasury Individual Income Tax Simulation Model," Office of Tax Analysis, U.S. Treasury Department, (Washington, D.C., February 1985).

[5]Richard S. Barr and S. Turner, "Microdata File Merging through Large-Scale Network Technology," *Mathematical Programming Study* 15 (1981).

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